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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,724	09/19/2003	Kenichi Kawasaki	50T5561.01	6054
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EXAMINER				
LANIER, BENJAMINE				
ART UNIT		PAPER NUMBER		
2432				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,724

Applicant(s)

KAWASAKI ET AL.

Examiner

BENJAMIN E. LANIER

Art Unit

2432

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,15-19,22,23,31-37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,15-19,22,23,31-37 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 April 2010 has been entered.

Response to Amendment

2. Applicant's amendment filed 15 March 2010 amends claims 1, 5, 7, 9, and 17. Applicant's amendment has been fully considered and entered.

Response to Arguments

3. Applicant's arguments with respect to claims 7-8 has been fully considered and is persuasive. The previous rejection of claims 7-8 has been withdrawn.

4. Applicant's arguments with respect to claim 31 fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

5. Applicant's arguments with respect to amended claim 17 has been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ishimaru, JP 2000-307494 A.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 2, 4-8, 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. The claims require, "displayer control signals are multiplexed with the multimedia data on the primary link", which renders the claims indefinite because the multimedia data is transmitted from the source to the displayer while the displayer control signals are transmitted from the displayer to the source.
9. Claim 15 requires, "at least one of: encryption keys, player control signals...are communicated between the transmitter and receiver on a secondary link," which renders the claims indefinite because claim 9 requires the player control signals to be transmitted with the multimedia data on the primary link.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
12. Claims 17-18, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Nesic, U.S. Patent No. 6,593,895, and further in view of Ishimaru, JP 2000-307494 A. Referring to claims 17-18, 22, 23, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of means for storing multimedia data, means for wirelessly transmitting, to a receiver, the multimedia data in uncompressed form on a link, the multimedia data is transmitted from the computer to the receiver on a primary link. Olson does not specify using a frequency band of 60 GHz. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of a link having a frequency of approximately sixty GigaHertz (60 GHz) such that unless the receiver is in the same room as the computer it substantially cannot receive the multimedia data, the multimedia data is high definition (HD) multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose signals being sent from the projector to the computer that adjust the directivity of the antenna beam. Ishimaru discloses transmitting a setting signal denoting the antenna directivity to a based station (Abstract), which meets the

limitation of capability signals are sent from the receiver to the means for wirelessly transmitting to cause the means for wirelessly transmitting to adjust a directivity of an antenna beam transmitted by the means for wirelessly transmitting, control signals are sent between the computer and receiver, at least some control signals being useful for establishing a multimedia player antenna beam control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit a setting signal to the computer that denotes the antenna directivity in order to reduce interference as taught by Ishimaru ([0004]-[0007]).

13. Claims 31-34, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nestic, U.S. Patent No. 6,593,895, and further in view of Saints, U.S. Patent No. 6,374,085. Referring to claims 31, 34, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of a source of multimedia data, a display for the multimedia data, the source wirelessly transmitting the multimedia data in an uncompressed form to the display on a primary link. Olson does not specify using a frequency band of 60 GHz. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a primary link at approximately sixty GigaHertz (60GHz), wherein the primary link has a data rate of at least two and a half Giga bits per second (2.0 Gbps). It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave

signals of Chang in order to take advantage of the high data rate communications possible using a high frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose that the computer and projector communicate power control information. Saints discloses transmitting power control information on the reverse link (Col. 2, lines 41-49), which meets the limitation of control signals are sent between the source and display, at least some control signals being useful for establishing a source antenna beam form control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector and computer of Olson to transmit power control information in order to avoid interference conditions and the reception of erroneous frames as taught by Saints (Col. 1, line 65 – Col. 2, line 8).

Referring to claims 32, 39, Olson does not specify that the data transmitted is high definition multimedia data. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of the source of multimedia data is a set-top box like device capable of decoding compressed multimedia content as received from at least one of satellite, cable, terrestrial broadcast, internet streaming, the data is high definition multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit high definition uncompressed data in Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32).

Referring to claim 33, Olson discloses utilizing LCDs ([0017]), which meets the limitation of the display is a liquid crystal display (LCD).

14. Claims 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nestic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and in further view of Edenson, U.S. Patent No. 7,006,995. Referring to claims 36, 37, Olson does not disclose the uncompressed data being encrypted prior to being received by the projector. Edenson discloses a projector receiving encrypted data and a decryption key together (Col. 3, line 61 - Col. 4, line 2 & Col. 8, lines 28-31), which meets the limitation of encryption keys are multiplexed with the multimedia data on the primary link, the player and source further communicate encryption keys on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be encrypted prior to being transmitted to the projector in order to render the data virtually useless if intercepted by an unauthorized party as taught by Edenson (Col. 3, line 66 – Col. 4, line 2).

15. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nestic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and in further view of Koyama, U.S. Publication No. 2002/0159035. Referring to claim 37, Olson does not disclose that the projector transmits display capability information to the portable computer. Koyama discloses a projector that transmits display settings information to a computer ([0016] & Figure 4), which meets the limitation of player control signals/capability signals are

communicated between the transmitter and receiver on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit display settings information to the portable computer in order to the system user of the current display settings for the projector such that the user is able to modify the current settings if desired as taught by Koyama ([0058]).

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Nesic, U.S. Patent No. 6,593,895, in view of Ishimaru, JP 2000-307494 A, and further in view of Rao, U.S. Patent No. 5,881,074. Referring to claim 19, Nesic does not specify whether the link is full or half duplex. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the link in full-duplex in order to take advantage of the full bandwidth as taught in Rao (Col. 2, lines 9-12), which would benefit the uncompressed data transmissions of Olson.

17. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and further in view of Rao, U.S. Patent No. 5,881,074. Referring to claim 35, Chang does not specify whether the link is full or half duplex. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the link in full-duplex in order to take advantage of the full bandwidth as taught in Rao (Col. 2, lines 9-12), which would benefit the uncompressed data transmissions of Olson.

18. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, and further in view of Yanagihara, U.S. Patent No. 5,712,946. Referring to claims 9, 11, 12, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation disposing a multimedia transmitter and a multimedia receiver in a room on different surfaces from each other, establishing a wireless link between the transmitter and receiver, wirelessly transmitting a multimedia signal on a link from the transmitter to the receiver. Olson does not specify using a frequency sufficiently high that the signal substantially cannot be received outside the room. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a frequency sufficiently high that the signal substantially cannot be received outside the room, the frequency is approximately sixty GigaHertz (60 GHz), the link has a data rate of at least two Giga bits per second (2.0 Gbps). It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave signals of Chang in order to take advantage of the high data rate communications possible using a high frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose multiplexing player control signals with the uncompressed data. Yanagihara discloses a video distribution system wherein trick play data is multiplexed with video signals (Col. 13, lines 1-8), which meets the limitation of player control signals are multiplexed with

multimedia data on the link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be multiplexed with trick play data in order to allow for varying speed reproduction as taught by Yanagihara (Col. 13, lines 1-8).

Referring to claim 10, Olson does not specify that the data transmitted is high definition multimedia data. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of the data is high definition multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit high definition uncompressed data in Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32).

19. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Yanagihara, U.S. Patent No. 5,712,946, and further in view of Koyama, U.S. Publication No. 2002/0159035. Referring to claim 15, Olson does not disclose that the projector transmits display capability information to the portable computer. Koyama discloses a projector that transmits display settings information to a computer ([0016] & Figure 4), which meets the limitation of player control signals/capability signals are communicated between the transmitter and receiver on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit display settings

information to the portable computer in order to the system user of the current display settings for the projector such that the user is able to modify the current settings if desired as taught by Koyama ([0058]).

20. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Yanagihara, U.S. Patent No. 5,712,946, and further in view of Saints, U.S. Patent No. 6,374,085. Referring to claim 16, Olson does not disclose that the computer and projector communicate power control information. Saints discloses transmitting power control information on the reverse link (Col. 2, lines 41-49), which meets the limitation of control signals are sent between the transmitter and receiver, at least some control signals being useful for establishing a transmitter antenna beam control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector and computer of Olson to transmit power control information in order to avoid interference conditions and the reception of erroneous frames as taught by Saints (Col. 1, line 65 – Col. 2, line 8).

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN E. LANIER whose telephone number is (571)272-3805. The examiner can normally be reached on M-Th 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin E Lanier/
Primary Examiner, Art Unit 2432